# Dlx1&2 and Mash1 transcription factors control striatal patterning and differentiation through parallel and overlapping pathways.

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**Public Summary:**

**Scientific Abstract:**
Here we define the expression of approximately 100 transcription factors in progenitors and neurons of the developing basal ganglia. We have begun to elucidate the transcriptional hierarchy of these genes with respect to the Dlx homeodomain genes, which are essential for differentiation of most GABAergic projection neurons of the basal ganglia. This analysis identified Dlx-dependent and Dlx-independent pathways. The Dlx-independent pathway depends in part on the function of the Mash1 b-HLH transcription factor. These analyses define core transcriptional components that differentially specify the identity and differentiation of the striatum, nucleus accumbens, and septum.